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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,873	12/30/2004	Walter Stieglbauer	STIEGLBAUER ET AL - I PCT	7849
25889	7590	01/18/2007	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			KERNS, KEVIN P	
			ART UNIT	PAPER NUMBER
			1725	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/519,873

Applicant(s)

STIEGLBAUER ET AL.

Examiner

Kevin P. Kerns

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-22 is/are pending in the application.
- 4a) Of the above claim(s) 10-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-4 and 6-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/7/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Election/Restrictions***

1. Applicants' election with traverse of Group I (claims 1-4 and 6-9) in the reply filed on December 11, 2006 is acknowledged. The traversal is on the ground(s) that examination of all three groups of inventions would not present a serious search burden. This is not found persuasive because each one of the three groups of inventions includes at least one special technical feature that is/are distinct from the other two respective groups. As a result, the search burden would be substantially increased in the examination of all three groups, as well as even for only two of the groups. For example, the device comprising at least two superimposed metal strips for protection of an electrode of Group I (claims 1-4 and 6-9) lack the pressure element for holding workpieces or guiding a strip, and lack the detection of contact of a spot welding tool with a workpiece, which are special technical features of Group II (claims 10-19) and Group III (claims 20-22), respectively. Furthermore, the spot welding tools of Group II (claims 10-19) lack at least two superimposed metal strips for reducing electrode wear, and lack the detection of contact of a spot welding tool with a workpiece, which are special technical features of Group I (claims 1-4 and 6-9) and Group III (claims 20-22), respectively. As a result of the lack of the same or corresponding special technical features, no single inventive concept exists. Therefore, restriction is appropriate.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

2. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract

Art Unit: 1725

on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

In this instance, the abstract should be provided on a separate sheet and should have the legal terms "comprising" and "consists of" revised accordingly. In addition, both instances of "The invention (also) relates to a" should be replaced with "A", as these are phrases which can be implied.

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).

Art Unit: 1725

- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

In this instance, the disclosure lacks specification headings.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: one or more structural element(s) that further comprise(s) the "device" (in addition to the two superimposed metal strips) in independent claim 1. For example, the metal strips within the device would necessarily include missing structural elements that include holding means and drive means for the strips. As claimed in its present form, the "device" only includes the "metal strips", and the workpieces to be welded are also not considered as a portion of the "device".

Art Unit: 1725

Claim 1 recites the limitations "the protection", "the resistance welding", "the same", and "the electrode protection strip". There is insufficient antecedent basis for these limitations in the claim.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 1 recites the broad recitation "workpieces", and the claim also recites "particularly metal sheets" which is the narrower statement of the range/limitation.

Claim 1 recites the broad recitation "a strip (1) placed over the electrode (4)", and the claim also recites "preferably in a manner displaceable relative to the same" which is the narrower statement of the range/limitation.

Art Unit: 1725

Claim 2 recites the broad recitation "workpiece", and the claim also recites "particularly metal sheet" which is the narrower statement of the range/limitation.

Claim 3 recites the broad recitation "workpiece to be welded", and the claim also recites "particularly metal sheet" which is the narrower statement of the range/limitation.

Claim 4 recites the broad recitation "the material of the metal strip (2,3)", and the claim also recites "in particular, of the metal strip (2) facing the electrode (4)" which is the narrower statement of the range/limitation.

The term "little tendency" in claim 2 is a relative term which renders the claim indefinite. The term "little tendency" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

With regard to claim 3, this claim recites improper Markush language. See MPEP 2173.05(h).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4 and 7 insofar as definite (in view of the 35 USC 112, 2nd paragraph rejections) are rejected under 35 U.S.C. 102(b) as being anticipated by Goodwin (US 2,356,049).

Goodwin discloses an electrode protecting device for a resistance welding apparatus that welds workpieces (e.g. metal sheets), in which the device includes a pad 34 having two superimposed (bimetallic) strips (35,36) provided over the electrode 33 and between the electrode 33 and the workpieces (30,31), such that the pad 34 having two congruent superimposed strips (35,36) includes a first strip layer 35 made of a high resistance material (e.g. iron, steel, stainless steel etc. having melting temperatures above 1000°C) that faces the electrode and a second strip layer 36 made of a low resistance material (e.g. copper, silver, copper alloy etc. having melting temperatures above 1000°C) that faces the workpieces, such that the two superimposed strips (35,36) would be exclusively positively connected via metallic (diffusion) bonding between the two metals, with little or no adhesion of the strips to the electrode and workpieces during resistance welding (column 1, lines 7-50; column 3, lines 3-75; column 4, lines 1-41; and Figures 4-6).

9. Claims 1-4 and 6-9 insofar as definite (in view of the 35 USC 112, 2nd paragraph rejections) are rejected under 35 U.S.C. 102(b) as being anticipated by Okita et al. (US 5,552,573).

Okita et al. disclose a resistance welding process and apparatus for welding of aluminum and aluminum alloy workpieces (e.g. metal sheets), in which the apparatus includes an insert material 9 provided over the electrode 1 and between the electrode 1 and the workpieces (11,12), such that the insert material 9 has a sheet-like core material 9a made of iron, steel, copper, or copper alloy (having melting temperatures

Art Unit: 1725

above 1000°C), and congruently arranged coated strip layers (9b,9c) made of Ni, Ni alloy, Ti, Ti alloy, Nb, Nb alloy, Mo, Mo alloy, W, W alloy, Cr, Cr alloy, Co, and Co alloy (having melting temperatures above 1000°C) that face the electrode 1 and workpieces (11,12), such that the superimposed strips (9a,9b,9c) would be exclusively positively connected via metallic (diffusion) bonding (e.g. plating, clad welding etc.) between the two metals, while the strips are able to be displaceable at different speeds relative to each other via reels (22,23,24,25) -- see Figure 5; and column 10, lines 43-51), with little or no adhesion of the strips to the electrode and workpieces during resistance welding (abstract; column 3, lines 24-58; column 4, lines 32-48; column 7, lines 1-26; 1st paragraphs of Examples 1-13; and Figures 1, 2, 5, and 6).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Gnuchtel, Mueller et al., Hughes, Stieglbauer et al., and JP 6-344149 references are also cited in PTO-892.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 1/9/07*
Primary Examiner
Art Unit 1725

KPK

kpk
January 9, 2007